APPENDIX 3

Waterwater Treatment Working Group Meeting
June 9, 2009

Supplemental Information Provided by VAMWA and MAMWA (6/8/09)

RECOMMENDATIONS:

1. Remove Virginia's James and York basins from MEP/MPS/E3 analysis.

2. Set E3 at 3-4 mg/l TN and 0.3 mg/l TP.

3. For Maryland and for Virginia Potomac-Shenandoah, Rappahannock and E. Shore, set MEF/MPS at 4 mg/l TN and 0.3 mg/l.

NOTES & DISCUSSION:

Regulatory Stability – A paramount consideration. Regulatory stability under 2005 regulations and related NPDES permits, grant agreements, engineering design contracts, construction contracts, and nutrient trading contracts is absolutely essential to VAMWA and MAMWA.

Virginia

- TN and TP WLAs for all 125 significant dischargers were adopted by a two-year rulemaking amending the Water Quality Management Planning Regulation (2005).

- For the York and James basins, pursuant to the 2003 Secretary Murphy PSC Memorandum memorializing the Bay allocations decisions, TN and TP WLAs are based on local water quality analysis: "...Virginia's York and James River basins were set at previously established tributary strategy nutrient cap load levels since each basin has minimal impact on mainstem Bay water quality conditions, and their influence on tidal water quality is predominantly local." Accordingly, these basins should be removed from the MEF/MPS analysis.

- For the Potomac-Shenandoah, Rappahannock and E. Shore basins, TN WLAs are based on 4 mg/l (or 3 mg/l (large DC metro area WWTPs), and TP WLAs are based on 0.3 mg/l (or 0.18 mg/l for large DC metro area WWTPs). This meets the CBP/WWT established target of 3-4 mg/l TN.

- TN and TP WLAs were promptly imposed on all significant dischargers as permit limits through issuance of a Watershed General Permit (WGP) (eff. Jan. 1, 2007).

- Under the WGP, the Virginia Nutrient Credit Exchange Association and the Nutrient Credit Services Agreement (a contract covering 105 facilities), construction is in progress to achieve

compliance under a 4-year schedule of compliance ending December 31, 2010. Also, contractual trading obligations are in effect until 2014.

- Virginia's Water Quality Improvement Fund, which funds a portion of the upgrade costs, is over-obligated by approximately $175 million for construction in progress and ready-to-proceed upgrades.

Maryland

- TN WLAs are based on 4 mg/l and TP WLAs are based on 0.3 mg/l.
- WLAs are imposed through NPDES permits.
- POTW construction is in progress.

POTW Reductions as Percentage of LOT

- From TN concentrations after secondary treatment (25 mg/l +/-), a 21 mg/l reduction to 4 mg/l is 95.5% of 3 mg/l.
- From TP concentrations after secondary treatment (5.9 mg/l +/-), a 5.6 mg/l reduction to 0.3 mg/l is 100% of 0.3 mg/l level and a 94.9% overall reduction.

Other POTW Considerations

- E3 definitions are unrealistically low for both TN and TP. V/MAMWA are especially interested in receiving the underlying engineering analysis for the draft E3 definitions in the Implementation and Reference Scenario table in advance of the WWT meeting.
- Theoretical marginal additional reductions below 4 mg/l and 0.3 mg/l likely have high marginal adverse environmental impacts in terms of GHG emissions/carbon footprint for energy consumption, chemical manufacturing and transportation.
- From a practical perspective, the CBP is nearing a no growth scenario given the lack of nonpoint source nutrient offsets in Virginia, especially in rural communities but eventually everywhere as existing facilities near full design capacity.
- Any minor gains that may in the future be achieved below 4 mg/l TN and 0.3 mg/l is essential to support smart growth on high-performing POTWs not otherwise possible.
- E3 should not be set lower than 4 mg/l TN and 0.3 mg/l TP for optimum overall environmental results (water, smart growth, land conservation, air, GHG/climate change).

Septic Systems

- For proposed septic system remediation by connection to POTW, septic system paper (Attachment F) is unclear how the septic system load is accounted for (seems to be ignored). Need to calculate loading for the connection scenario similar to need to transfer allocations for undeveloped lands to developed lands or MS4s.
- What is the logic in exempting 20% of septic systems in Full Regulation scenario? Wouldn't 100% of systems be subject to regulation? Is a de minimis exemption threshold contemplated (e.g., seasonal use only residential)?